INDEX TO VOLUME 37.

New names and the final members of new combinations are in **bold face type.**

ABRAMS, L. R. Studies on the flora of Southern California, 149
Acalypha virginica, 115, 119
Acanthopanax, 85
Acanthospermum australe, 417
Acer, 116; rubrum, 121, 408, 410, 411, 413, 414, 416, 417, 419, 421–426, 599; saccharinum, 114
Achillea, 455; alpicola, 457; arenicola, 459, 460; borealis, 456–460; californica, 458–460; gigantea, 459; lanulosa, 455–460; lanulosa alpicola, 457; laxiflora, 455, 459; Millefolium, 425, 455–459; Millefolium nigrescens, 458, 459; Millefolium occidentalis, 456; multiflora, 455; **occidentalis**, 456–459; Ptarmica, 455, 456; setacea, 457; subalpina, 457, 459, 460; tomentosa, 457
Achroanthes monophylla, 434
Achyranthes, 515; aspera, 515; obtusifolia, 515
Achyropappus, 332; Woodhousii, 333
Aciphyllaea, 449
Aconitum noveboracense, 561
Actaea rubra, 61, 561
Actinea, 444
Actinella, 334, 443, 444; acaulis, 444, 445; acaulis caespitosa, 444, 445; angustifolia, 446; biennis, 448; carnosa, 334; depressa, 444; epunctata, 444; eradicata, 444; incana, 444; integrifolia, 445, 446; lanata, 445; leptoclada, 444, 446; linearis, 446; scaposa linearis, 446; simplex, 444; Torreyana, 446
Acuan, 117; illinoense, 115, 117, 119
Additions to the flora of peninsular Florida, 513
Adelia acuminata, 115, 117
Adenarium maritimum, 58
Adenophyllum, 449
Adiantum, 116; Capillus-veneris, 115
Adicea pumila, 122, 126
Aecidium, 571, 580; Apocyni, 579; **leporinum**, 578; **libertum**, 580; **obesum**, 579
Afzelia cassioides, 414
Agrimonia mollis, 575
Agrostemma Githago, 56
Air chambers in the Ricciaceae, The development of, 73
Alabama, A botanical and geological trip on the Warrior and Tombigbee rivers in the coastal plain of, 107
Alectoria, 606, 607; ochroleuca, 606; ochroleuca sarmentosa, 10; rigida, 606
Allenrolfea occidentalis, 576
Allies, Viola palmata and its, 581
Alnus, 116, 117; rugosa, 115, 117, 411–414, 419, 421, 423–425
Alpinia speciosa, 514
Alsine borealis, 560; graminea, 57; media, 57; pubera, 560
Altamaha Grit region of Georgia, 407–409, 418
Alternanthera lanuginosa, 480
Alyssum alyssoides, 69
Amaranthus, 115; blitoides, 55; graecizans, 55; hybridus, 55; pumilus, 55, 560; retroflexus, 55
Amauria dissecta, 333
Ambrosia artemisiifolia, 127, 422; coronopifolia, 127; elatior, 127; **media**, 127; psilostachya, 127; trifida, 119
Amelanchier, 257; **recurvata**, 150, 151; venulosa, 151
America, north of the 15th parallel, A manual of the genus Usnea, as represented in North and Middle, 1
American botanical literature, (1909), 43; (1903–1909), 87; (1903–1908), 155; (1910), 207, 265; (1909), 337; (1900–1909), 387; (1910), 439, 481, 519, 563, 611
Ammannia, 116, 117; coccinea, 115, 119, 121
Ammodenia **maritima**, 58; peploides, 560
Amorpha, 417; fruticosa, 115; herbacea, 416, 597
Ampelopsis arborea, 115, 119; cordata, 115
Amyris balsamifera, 86; elemifera, 86; **Purpusii**, 86
Anamomis fragrans, 355; **grandis**, 355
Ananas Ananas, 514
Anaphalis, 325; **angustifolia**, 326; margaritacea, 326; subalpina, 325, 326
Anastrophia bahamensis, 577
Anchistea, 422; virginica, 410, 422, 426
ANDREWS, F. M. Development of the embryo-sac of Hybanthus concolor, 477
Andromeda Cookii, 29; cretacea, 504; grandifolia, 28; Novae-Caesareae, 29, 505; Parlatorii, 29; Wardiana, 504
Andropogon furcatus, 115, 119

Androvettia, 504, 510; **carolinensis**, 183, 200; statenensis, 183–185
Aneilema nudiflorum, 513
Anemone quinquefolia, 61; riparia, 561
Aneura, 217, 218
Angelica hirsuta, 413
Angelonia angustifolia, 517
Anona Cherimolia, 529; cornifolia, 537; glabra, 529; muricata, 537; reticulata, 529; squamosa, 529
Anonas, Pollination experiments with, 529
Antennaria, 319; **acuta**, 323; alpina, 320, 321, 323; anaphaloides, 322; angustifolia, 322; aprica, 322; dioica rosea, 322; flavescens, 320–322; foliacea, 323; fusca, 320; luzuloides, 323; media, 320, 321, 323; monocephala, 321; mucronata, 320, 321; nardina, 321; oblanceolata, 323; parvifolia, 322; pulcherrima, 322, 323; pulvinata, 322; reflexa, 320-322; rosea, 322; rosea angustifolia, 322; rosulata, 323; Sierrae-Blancae, 323; sordida, 322; umbrinella, 320, 321
Aplectrum hyemale, 435
Apocynum, 261; androsaemifolium, 261; **bicolor**, 261, 262; cannabinum, 261; cannabinum hypericifolium, 579; hypericifolium, 579
Aquilegia canadensis, 61
Arabis lyrata, 82
Aralia, 27, 504; furcata, 509; nassauensis, 28; Ravniana, 27; rotundiloba, 28; spinosa, 419–421; Towneri, 27; **washingtoniana**, 27, 29
Araucaria, 181, 198; bladenensis, 505; **Clarkii**, 182; Jeffreyi, 182, 505
Arctium, 557; minus, 557
Arenaria groenlandica, 560; leptoclados, 560; Michauxii, 560; peploides robusta, 58; serpyllifolia, 58
Arethusa bulbosa, 433
Argemone, 334
Argentina, 376, 377, 380, Anserina, 375
Aristida, 420; stricta, 416, 417, 420, 601, 602
Arnica, 460, 461; amplexicaulis, 461; amplexifolia, 461; **caudata**, 463; Chamissonis, 460–462; Chamissonis longinodosa, 461; columbiana, 462; cordifolia, 462; diversifolia, 461, 462; foliosa, 460; fulgens, 462; grandiflora, 462; lanceolata, 461; latifolia, 461, 462; latifolia viscidula, 461, 462; longifolia, 463; Menziesii, 461, 462; mollis, 460–462; monocephala, 460, 462; pedunculata, 460, 462; platyphylla, 462; rhizomata, 461; rivularis, 461; Rydbergii, 460; subplumosa, 461, 462; subplumosa sylvatica, 462; sylvatica, 462; tenuis, 460; tomentulosa, 461; ventorum, 462
Artemisia, 449; arbuscula, 449, 453; aromatica, 449, 454; Bakeri, 451, 453, 454; borealis, 450; **Bourgeauana**, 454; Brittonii, 452; canadensis, 450, 451, 454; candicans, 451, 452; Carruthii, 451; coloradensis, 451, 453; commutata, 451; desertorum, 451; desertorum Hookeriana, 451; discolor, 450, 451, 453; diversifolia, 450, 452, 453; Douglasiana, 453; dracunculoides, 449; elatior, 452, 453; floccosa, 450–452; Forwoodii, 450, 451, 454; franserioides, 453; gnaphalodes, 451–453; gracilenta, 450, 452; graveolens, 450; **Herriotii**, 455; heterophylla, 452; Hookeriana, 452, 455; incompta, 453; kansana, 451, 453; Kennedyi, 453; latiloba, 452, 455; longifolia, 450, 455; ludoviciana, 452; mexicana, 451, 452, 454; microcephala, 451, 454; natronensis, 450; neo-mexicana, 454; norvegica, 449; nova, 449, 454; pabularis, 451; Parryi, 453; Pattersonii, 453; paucicephala, 450, 452; pudica, 451, 452; Purshiana, 451, 452; rhizomata, 451; Rothrockii, 453; saxicola, 449, 450, 453; scopulorum, 453; Scouleriana, 450; silvicola, 452–455; spiciformis, 453; spithamaea, 450, 454; stenoloba, 451; subglabra, 450; Suksdorfii, 452, 453; Underwoodii, 452; Wrightii, 451, 453, 454
ARTHUR, J. C. New species of Uredineae, 569
Arundinaria, 422; macrosperma, 115; tecta, 413, 419, 421
Asarum reflexum, 559
Asimina triloba, 561
Aspidiophyllum, 28
Asplenium angustifolium, 124, 125
Aster, 116, 145; acuminatus, 179; albus, 146; andinus, 136; borealis, 141; **Butleri**, 138, 139; ciliomarginatus, 143, 144; commutatus, 137; concinnus, 140; **eriocaulis**, 143; foliaceus, 145; **Franklinianus**, 141; Fremontii, 143; Geyeri, 140; giganteus, 135; glastifolius, 144; griseus, 137; hesperius, 140; hesperius Wootonii, 140; Jessicae, 143; junceus, 141, 142; **junciformis**, 142; laevis, 140; lateriflorus, 115, 117; laxiflorus, 141; laxiflorus borealis, 141; lonchophyllus, 143; longifolius, 141; longulus, 141, 142; Lindleyanus, 137–139; lutescens, 147; **MacCallae**, 138; **Macounii**, 136; **Mearnsii**, 144; meritus, 135, 136; montanus, 134-136; multiflorus, 137; Nelsonii, 137; occidentalis, 143, 144; oreganus, 145; paniculatus, 137, 141; **phyllodes**, 145; praecox, 138, 139; proximus, 145; ptarmicoides, 146; ptarmicoides lutescens, 147; puniceus 145; Richardsonii, 134–136; Richardsonii, var., gigantea, 135, 136; **roseolus**, 141; salicifolius, 141; salsuginosus, 134;

sericeus montanus, 135; sibiricus, 136; sibiricus giganteus, 135; **subcaudatus**, 143; **subsalignus**, 140; Tradescanti, 141; **Umbachii**, 144; umbellatus pubens, 147; virgatus, 140; **Williamsii**, 136; **Wilsonii**, 137, 138; Wootonii, 140
Atlantic coastal plain, Contributions to the Mesozoic flora of the, 19, 181, 503
Atriplex arenaria, 53; hastata, 53; patula, 53
Azalea, 578
Badiera, 360, 361; acuminata, 363; Berteriana, 361, 363; **cubensis**, 361–363; divaricata, 363; diversifolia, 361, 362; domingensis, 361; **montana**, 361, 363; oblongata, 361, 362; Penaea, 360, 361, 363; **virgata**, 361
Bahia, 332, 333; chrysanthemoides, 333; desertorum, 333; dissecta, 333; Woodhousii, 333
Baileya multiflora, 480; multiradiata, 480
Baldwinia uniflora, 414, 594
Balsamorrhiza, 326, 327; Careyana, 327; floccosa, 327; hirsuta, 326; Hookeri, 326; Hookeri hirsuta, 326; incana, 326, 327; macrophylla, 326, 327; sagittata, 326, 327; terebinthacea, 326, 327; tomentosa, 327
Baptisia, 413
Baptisia Serenae, 413
Barbarea rivularis, 68; stricta, 68; vulgaris, 68
Batrachium trichophyllum, 561
Beloperone californica, 577
Berberis Thunbergii, 63; vulgaris, 62
BERRY, E. W. Contributions to the Mesozoic flora of the Atlantic coastal plain, 19, 181, 503
Betula, 116, 117; nigra, 114, 424; populifolia, 426
BICKNELL, E. P. Have we enough New England blackberries?, 393; The ferns and flowering plants of Nantucket, 51
Bicuculla canadensis, 562
Bidens, 328; Bigelovii, 328, 329; bipinnata, 328, 329; **Shrevei**, 359
Bigelovia graveolens latisquamea, 131; Howardi attenuata, 130
Bignonia crucigera, 115
Blackberries?, Have we enough New England, 393
Blasia, 217
Blephariglottis cristata, 432; grandiflora, 432; peramoena, 433; psychodes, 433
Boebera, 449
Boerhaavia erecta, 120
Botanical and geological trip on the Warrior and Tombigbee rivers in the coastal plain of Alabama, A, 107
Botanical literature, American, (1909), 43; (1903–1909), 87; (1903–1908), 155; (1910), 207, 265; (1909), 337; (1900–1909), 387; (1910), 439, 481, 519, 563, 611
BOVIE, W. T. The effects of adding salts to the soil on the amount of non-available water, 273
Brachyphyllum, 185, 510; macrocarpum, 20, 183, 504
BRAINERD, E. Five new species of Viola from the South, 523; Viola palmata and its allies, 581
Brasenia Schreberi, 59
Brassica arvensis, 66, 67, 69; campestris, 66, 67, 69; juncea, 67; Napus, 67; nigra, 67; oleracea, 67; Rapa, 66
Breynia **nivosa**, 516
BRITTON, N. L. Studies of West Indian plants, 345
BROWN, H. B. The genus Crataegus, with some theories concerning the origin of its species, 251
Brunnichia cirrhosa, 115
Bursa Bursa-pastoris, 69
Buthotrephis, 310; gracilis, 309–311; **Hallii**, 310, 311; tenuis, 309–311
Buthotrephis gracilis Hall, The name, 309

Cajan Cajan, 515
Cakile edentula, 66
California, Studies on the flora of Southern, 149
California, Two new seed-plants from the Lake Tahoe region, 261
Callionia, 376
Caloglossa, 105
Caltha radicans, 561
Camocladia, 345
Campanula americana, 120
CAMPBELL, D. H. The embryo-sac of Pandanus coronatus, 293
Campulosus aromaticus, 409, 417, 601
Capnoides aureum, 562; flavulum, 562
Capriola Dactylon, 120
Cardamine arenicola, 68; flexuosa, 68; pennsylvanica, 68
Cardiospermum Halicacabum, 115, 120
Carduus, 541, 556; acaulescens, 547, 548; acaulescens × americanus, 546; acaulescens×coloradensis, 547; acaulescens ×scopulorum, 547; altissimus, 551, 557; americanus, 545, 546, 551, 554, 556; americanus×coloradensis, 546; americanus×griseus, 545; americanus ×spathulatus, 546; araneosus, 549, 555; bipinnatus, 556; brevifolius, 556; **Butleri**, 542, 543, 553; Butleri×Kelseyi, 553; canalensis, 548; canescens, 555, 557; canovirens, 555; Centaureae, 551, 554; coloradensis, 546, 547, 550, 554–556; coloradensis × undulatus, 550; crassus, 547, 548; dispersus, 550; Drummondii, 553, 555; Eatoni, 552,

553. 555; Eatoni×olivescens. 553; Eatonii. 555; edulis. 552; eriocephalus leiocephalus. 555; erosus. 545. 546. 548. 554. 555; filipendulus. 550. 551. 556. 557; filipendulus×ochrocentrus. 550; Flodmanii. 550. 556. 557; Flodmanii× megacephalus. 550; foliosus. 543. 552. 555; foliosus×scopulorum. 552; griseus. 545. 546. 548. 549. 554. 556; griseus× laterifolius. 548; griseus×Parryi. 549; griseus×scopulorum. 548; Hookerianus. 543. 554; Hookerianus eriocephalus. 554; Kelseyi. 542. 543. 553; **lacerus**. 543. 555; laterifolius. 548. 551; leiocephalus. 553; Macounii. 552; megacephalus. 550. 552. 555–557; megacephalus×ochrocentrus. 551; Nelsonii. 556. 557; nevadensis. 553; oblanceolatus. 556. 557; ochrocentrus. 550–552. 555–557; **olivescens**. 544. 553; oreophilus. 549. 553. 555. 556; oreophilus× scopulorum. 549; Osterhoutii. 548. 554; palousensis. 556; Parryi. 548. 549. 555; perplexans. 551; plattensis. 551. 556. 557; plattensis×undulatus. 551; **polyphyllus**, 542. 552; pulchellus. 553. 554. 556; pulchellus×undulatus. 553; pulcherrimus. 544. 555; repandus. 413; scariosus. 555; scopulorum. 542. 548. 549. 552. 554–556; spathulatus. 546. 556; Tracyi. 544. 556; truncatus. 556; Tweedyi. 542. 552. 555; undulatus. 550–552. 554–557; undulatus canescens. 557

Carex. 117. 231. 235. 238–241. 243. 244 247. 580; **abscondita**, 244; **aestivaliformis**, 238; aestivalis. 239; agglomerata. 246; **aggregata**, 246; **amphigena**. 246; annectens. 246; aristata. 245; atherodes. 245; atlantica. 249. 250; Barrattii. 245; **biltmoreana**, 234. 235; **Bushii**, 241–243; **camporum**, 244; caroliniana. 242. 243; cinnamomea. 244; **colorata**, 231. 232. 234. 235; cuspidata. 249; **debiliformis**, 244; deflexa Farwellii. 244; delicatula. 245; **Farwellii**, 244; filiformis. 245; fulva. 240. 241; **fulvescens**, 239; **glacialis**, 244; glareosa amphigena. 246; gracillima. 239; gracillima×aestivalis. 238; Grayana. 249; Greeniana. 240; helodes. 240; hirsuta. 242. 243; hirsuta cuspidata. 241. 243; **hirtifolia**, 244; Hornschuchiana. 240. 241; **Howei**, 245; **impressa**, 236. 238; incomperta. 250; interior capillacea. 245; Lachenalii. 246; lacustris. 235. 236 238; laevigata. 240; lagopina. 246; lanceata. 249; lasiocarpa. 245; Leersii. 245. 250; littoralis. 245; livida. 232. 249; longirostris. 245; marcida. 244; Meadii. 231. 232. 235; mediterranea. 246; **mesochorea**. 246; minima. 246; mirabilis. 244; **normalis**, 244; oxylepis. 239; pedata. 244; polymorpha. 232. 234; ptychocarpa. 244; pubescens. 239. 244; recta. 249; **rhomalea**, 246; riparia. 235. 236. 238; riparia impressa. 236; salina. 249; salina cuspidata. 249; salina kattegatensis. 249; saxatilis rhomalea. 246; Sprengelii. 245; stellulata. 245. 250; sterilis. 245. 249. 250; Sullivantii. 239; **Swanii**, 246; tetanica. 231. 232. 234. 235; tetanica Woodii. 232; tomentosa. 245; triceps. 242; triceps cuspidata. 243; triceps hirsuta. 247; triceps longicuspis. 241; vaginata. 232; virescens. 246–248; virescens minima. 246; virescens Swanii. 246; Woodii. 231. 234; xanthocarpa. 246; xanthocarpa annectens. 246

Carex. Notes on. 231

Carpinus caroliniana. 114

Castalia odorata. 60; tuberosa. 561

Castanea dentata. 425

Cebatha Carolina. 119

Cecropia. 509

Celastrophyllum. 25; Newberryanum. 25; undulatum. 198

Centaurea. 557; Cyanus. 557; solstitialis. 557

Cephalanthus occidentalis. 115. 424

Cephalophora. 444

Cephalotaxites insignis. 187

Cephalotaxopsis. 187

Cephalotaxospermum, 186. 188; **carolinianum**, 187

Cephalotaxus. 187. 188

Cerastium arvense. 58; semidecandrum. 58. 560; vulgatum. 57. 58

Ceratophyllum demersum. 60

Cercis canadensis. 114

Cercocarpus betulaefolius. 149; **minutiflorus**, 149

Cereus giganteus. 480

Chaenactis. 334; achilleaefolia. 334; alpina. 334; Douglasii. 334; Douglasii montana. 334; pedicularia. 334; scaposa. 334

Chaenocephalus **propinquus**. 360; venosus 360

Chamaechaenactis. 334

Chamaecrista **fasciata**. 352

Chamaecyparis. 427. 601. 602; thyoides. 413. 426. 602

Chamaephyton. 377

Chelidonium majus. 63

Chenopodium album. 51. 52; album viridescens. 51; ambrosioides. 53; Boscianum. 560; Botrys. 53; hybridum. 53; lanceolatum. 52; leptophyllum. 51; murale. 52; opulifolium. 52; paganum. 51. 52; rubrum. 53; viride. 51. 52

Chondria. 104. 105

Chondrophora. 418

Chondrophora nudata. 414. 416

Chondrophyllum Nordenskioldi. 189

Chrysopsis, 147; alba, 146, 147; **angustifolia,** 128; **barbata,** 130; **Butleri,** 129; foliosa, 128; **grandis,** 129; hispida, 130; stenophylla, 128; villosa, 129
Chrysothamnus affinis attenuatus, 130; **attenuatus,** 130; Bakeri, 132; glaucus, 131; graveolens, 131, latisquamea, 131; **marianus,** 131; puberulus, 131, 132; **salicifolius,** 130; **stenolepis,** 131; Vaseyi, 132; viscidiflorus, 131
Cicca disticha, 516
Cienfuegosia **Drummondii,** 475; sulfurea, 474, 475; sulphurea Drummondii, 474, 475; sulphurea glabra, 474, 475
Cienfuegosia Drummondii, a rare Texas plant, 473
Cinnamomum, 199, 510; Heerii, 199, 504; intermedium, 27, 504
Cirsium brevifolium, 557; canescens, 557; Drummondii, 555; eriocephalum, 542; eriocephalum leiocephalum, 553; foliosum, 553; scariosum, 543, 555
Cissites, 28; acuminatus, 28; formosus, 25; formosus **magothiensis,** 25; Harkerianus, 28
Cissus **cucurbitacea,** 353
Cladothrix lanuginosa, 560
Claytonia caroliniana, 560
Clematis ochroleuca, 561; Viorna, 561
Clethra, 420; alnifolia, 408, 410, 413, 414, 416, 419
Cliftonia, 409; monophylla, 408
Clitoria Ternatea, 515
Clusia **silvicola,** 354
Cnicus canescens, 557; Drummondii, 555; Eatoni, 553; eriocephalus, 542, 555; scariosus, 543; undulatus canescens, 557
Coastal plain, as observed in traveling from Georgia to New York in July, A quantitative study of the more conspicuous vegetation of certain natural subdivisions of the, 405
Coastal plain, Contributions to the Mesozoic flora of the Atlantic, 19, 181, 503
Coastal plain from Georgia to New York in July, 1909, Notes on the distribution of some plants observed in traveling through the, 591
Coastal plain of Alabama, A botanical and geological trip on the Warrior and Tombigbee rivers in the, 107
Colastus truncatus, 532
Coleochaete, 218
Cololejeunea, 366, 372; Biddlecomiae, 365–368; calcarea, 366–369; Goebelii, 366, 368
Colutea arborescens, 574; primordialis, 24
Comarella, 380
Comarum, 380
Commelina, 573; angustifolia, 573; elegans, 573; erecta, 573; hirtella, 115, 119; sulcata, 573; virginica, 573
Comocladia, 345; **acuminata,** 349; cordata, 347; dentata, 349, 350; dentata brevifolia, 350; dentata propinqua, 350; **Dodonaea,** 351; **domingensis,** 350; Ehrenbergii, 346; glabra, 349; **grandidentata,** 346; **Hollickii,** 346; ilicifolia, 351; integrifolia, 345; intermedia, 349; **jamaicensis,** 347; **parvifoliola,** 346; **pilosa,** 348; pinnatifida, 345; platyphila, 349; platyphylla, 348, 349; propinqua, 348, 350; pubescens, 347; tricuspidata, 351; undulata, 348; velutina, 347
Comptonia, 426; peregrina, 426
Conobea multifida, 119, 121
Conoclinium, 117; coelestinum, 115, 119
Conringia orientalis, 66, 69
Contributions to the Mesozoic flora of the Atlantic coastal plain, 19, 181, 503
Convolvulus Nuttallii, 480
Coptis trifolia, 60, 561
Corallorhiza Corallorhiza, 435; Wisteriana, 435
Cornophyllum vetustum, 27
Cornus, 27; florida, 411–414, 416, 417, 419–421, 423, 424; Forchhammeri, 27; praecox, 27
Coronopus didymus, 66
Crataegus, 61, 251–260, 397; Brainerdi, 259; coccinea, 254; monogyna, 259
Crataegus, with some theories concerning the origin of its species, The genus, 251
Ctenopteris insignis, 185
Cubelium concolor, 477
Cunninghamites, 198, 505; elegans, 186, 200, 505
Cycadinocarpus circularis, 182
Cyclolejeunea, 366
Cyperus alternifolius, 513; inflexus, 123
Cypripedium acaule, 430; arietinum, 430; candidum, 431; flavescens, 431; hirsutum, 430, 431; parviflorum, 431; pubescens, 431; Reginae, 430
Cyrilla, 417, 420, 598; racemiflora, 414, 416, 419, 596
Cystococcus humicola, 3
Cytisus, 574; scoparius, 597

Dacrydium, 510
Dactylophyllum, 377
Dammara, 510; borealis, 185
Dasiphora, 379, 380
Dasya, 104, 105
Dasystoma pectinata, 413
Daucus Carota, 422–425, 595
Decodon verticillatus, 419
Delphinium, 31, 32, 35; **amplibracteatum,** 32, 35; azureum, 31, 33; calophyllum, 36; camporum, 32–34; Cockerellii, 32, 39; **confertiflorum,** 32, 33; cucullatum, 41; Geyeri, 34; **macrophyllum,** 33, 40; **novo-mexicanum,** 33, 37–39; occidentale, 31, 32, 41; robustum, 32, 37, 38;

Sapellonis, 33, 39; scaposum, 32, 34; scopulorum, 31–33, 36; **Sierrae-Blancae,** 33, 38; strictum, 34; tenuisectum, 31, 32, 36; Wootoni, 33
Deschampsia caespitosa, 570
Development of air chambers in the Ricciaceae, The, 73
Development of the embryo-sac of Hybanthus concolor, 477
Dianthera, 116, 117; americana, 115, 123
Dianthus Armeria, 57; deltoides, 560
Diapedium brachiatum, 121
Dichromena latifolia, 417, 601
Dicksonia, 510
Diodia virginiana, 119
Dionaea muscipula, 415
Diospyros virginiana, 119
Diplopappus albus, 146, 147; filifolius, 319; lutescens, 147
Diplotaxis muralis, 67
Discoid gemmae in the leafy hepatics of New England, 365
Distribution of some plants observed in traveling through the coastal plain from Georgia to New York in July, 1909, Notes on the, 591
Dodonaea, 351
Doellingeria ptarmicoides, 146; **pubens,** 147; umbellata, 147
Dolichos Lablab, 515
Dondia linearis, 54; maritima, 54
DOWELL, P. The violets of Staten Island, 163
Draba verna, 69, 258
Drosera filiformis, 70; longifolia, 70, 304; rotundifolia, 69
Drymocallis, 377, 379, 380
Dryopteris, 201, 505, 510; Boottii, 201; Clintoniana, 201, 202; Clintoniana × **marginalis,** 201–203; cristata 201; cristata×intermedia, 201; cristata×marginalis, 201–203; Goldiana, 201; intermedia, 201; marginalis, 201–203; marginalis×spinulosa, 203; pittsfordensis, 203; spinulosa, 201
Dryopteris, One of the hybrids in, 201
Dubautia **Waialealae,** 303, 304
Duchesnea, 379
Dugaldea, 448; Hoopesii, 448
Dynamidium, 377
Dysodia, 448; aurea, 449; papposa, 449; Porophyllum, 449
Dyssodia, 449

Echinochloa Crus-galli, 115, 120
Eclipta alba, 115, 119
Editions of Emory's Report, 1848, Other, 479
Effects of adding salts to the soil on the amount of non-available water, The, 273
Elaeodendron, 25; dioicum, 25; **marylandicum,** 24, 29; strictum, 25
Eleusine indica, 120
Embryo-sac of Hybanthus concolor, Development of the, 477
Embryo-sac of Pandanus coronatus, The, 293
Emilia sonchifolia, 518
Emory's Report, 1848, Other editions of, 479
Encelia nutans, 334
Enceliopsis, 328; nutans, 328
Encephalus albus, 146
Enomegra, 334
Enslenia albida, 115
Epipactis viridiflora, 433
Equisetum arvense, 124; hyemale, 124
Eragrostis hypnoides, 119
Erigeron, 313, 314, 319; acris, 315, 318; acris droebachensis, 317; alpinus, 318; asper, 316; caespitosus, 319; canus, 319; cinereus, 318; colo-mexicanus, 318; commixtus, 318; compositus, 315; consobrinus, 316; conspicuus, 315; curvifolius, 316; droebachensis, 315, 317, 318; Earlei, 316; Eatonii, 316; **eximius,** 316; filifolius, 319; flabellifolius, 315; formosissimus, 316; Garrettii, 319; glabellus, 316; incanescens, 316; jucundus, 315; lapidiluteus, 317; lapiluteus, 315, 317; leucotrichus, 319; luteus, 316, 319; macranthus, 315, 316; melanocephalus, 319; montanensis, 317, 319; Muelleri, 318; multifidus, 315; nematophyllus, 316; nevadensis, 319; oblanceolatus, 316; Parryi, 316, 317; peucephyllus, 316, 319; platyphyllus, 315; pulchellus, 318; pulchellus unalaschkensis, 318; radicatus, 317; salicinus, 315; Scribneri, 316, 317; simplex, 319; speciosus, 315; subtrinervis, 315, 316; **tener,** 319; **trifidus,** 315; Tweedyi, 319; **unalaschkensis,** 318; uniflorus, 318; uniflorus pulchellus, 318; utahensis, 319; vetensis, 317; viscidus, 316; yellowstonensis, 315, 317
Eriocaulon decangulare, 409, 410, 414, 417, 420
Eriogonum, 413; Abertianum, 480; tomentosum, 413, 599
Erysimum cheiranthoides, 69
Eucalyptus, 26, 195, 196, 509; angusta, 504, 505; angustifolia, 26; Geinitzi, 26, 196; latifolia, 26, 195
Eumitria, 14
Eupatorium purpureum, 423; rotundifolium, 409–411, 413, 414, 417, 419, 422; serotinum, 119
Euphorbia eriogonoides, 597; humistrata, 115, 119; nutans, 115, 119
Experiments with Anonas, Pollination, 529

Fagara, 85; bijuga, 86; elegantissima, 85; granulata, 86; Harmsiana, 86; Hartii, 85; Liebmanniana, 85; mollissima, 86; monophylla, 86; rhodoxylon, 85
Fagus, 420, 425, 510; grandifolia, 114, 419, 421, 423, 424
FARWELL, O. A. Other editions of Emory's Report, 1848, 479
Ferns and flowering plants of Nantucket, 51
Ficus, 195, 196, 505, 506; atavina, 196; crassipes, 505; elastica, 195, 200; glacoeana, 195; Krausiana, 505; ovatifolia, 504; Peruni, 196; **Stephensoni,** 194, 200
Fimbristylis autumnalis, 119, 122; perpusilla, 122; Vahlii, 115, 119, 122
Five new species of Viola from the South, 523
Flabellaria magothiensis, 21
Flora notes, Local, 429, 559
Flora of peninsular Florida, Additions to the, 513
Flora of Southern California, Studies on the, 149
Flora of the Atlantic coastal plain, Contributions to the Mesozoic, 19, 181, 503
Flora, Studies on the Rocky Mountain, 127, 313, 443, 541
Floret sterility of wheat, Stemphylium Tritici sp. nov., associated with, 205
Florida, Additions to the flora of peninsular, 513
Flowering plants of Nantucket 51
Fontainea grandifolia, 508
Fossil fucoid, A new, 305
Fossombronia, 217
Fragaria, 377, 380
Fraxinus americana, 114
Fucoid, A new fossil, 305
Fucoides gracilis, 309–311
Fugosia, 473; Drummondii, 473–475; sulfurea, 474

Gaillardia aristata, 443; arizonica, 443; **Mearnsii,** 443; pinnatifida, 443
Galardia acaulis, 444, 445
GATES, F. C. The validity of Helianthus illinoensis Gleason as a species, 79
Gemmae in the leafy hepatics of New England, Discoid, 365
Genista, 574; tinctoria, 575
Genus Crataegus, with some theories concerning the origin of its species, The, 251
Genus Usnea and its Linnaean nomenclature, The, 605
Genus Usnea, as represented in North and Middle America, north of the 15th parallel, A manual of the, 1
Geological trip on the Warrior and Tombigbee rivers in the coastal plain of A'abama, A botanical and, 107
Georgia, Contributions to the Mesozoic flora of the Atlantic coastal plain—VI, 503
Geranium humile, 304; Robertianum, 67
Geum 257
Glaux maritima, 571
Gleditschia, 197
Gleditsia, 197; donensis, 197; triacanthos, 197
Gleditsiophyllum, 197; **triacanthoides,** 197
Gleichenia, 510; delawarensis, 20
Glottidium vesicarium, 119
Glyceria acutiflora, 572; fluitans, 572; septentrionalis, 572
Gnaphalium, 323, 324; albescens, 324; angustifolium, 324; chilense, 324; decurrens, 325; exilifolium, 324; lagopodioides, 324; microcephalum, 325; proximus, 324; Sprengelii, 324; sulphurescens, 323, 324; thermale, 323, 324; uliginosum, 324; **Williamsii,** 324; Wrightii, 324
Gomphrena decumbens, 515; globosa, 515
Gonolobus laevis, 115
Gordonia, 417, 420; Lasianthus, 416, 419, 596
Grindelia **columbiana,** 128, 130; discoidea, 128; **integerrima,** 128; nana, 128; nana columbiana, 128; nana discoidea, 128
Grossularia hirtella, 71
Guettarda argentea, 358; **constricta,** 358
Gymnadeniopsis conopsea, 432; integra, 431
Gymnolomia annua, 327; **ciliata,** 328; hispida ciliata, 328; **linearis,** 327; longifolia, 327; multiflora, 327
Gyrostachys plantaginea, 434; stricta, 434

Habenaria, 422, 427; blephariglottis, 414, 417–419, 422, 426; ciliaris, 423
Haliserites, 305, 306; Dechenianus, 305, 306; Dechenianus lineatus, 305; distans, 306; lineatus, 305; lusaticus, 306; Reichii, 508
Haplomitrium, 217
HARPER, R. M. A botanical and geological trip on the Warrior and Tombigbee rivers in the coastal plain of Alabama, 107; A quantitative study of the more conspicuous vegetation of certain natural subdivisions of the coastal plain, as observed in traveling from Georgia to New York in July, 405; Notes on the distribution of some plants observed in traveling through the coastal plain from Georgia to New York in July, 1909, 591
Have we enough New England blackberries?, 393
Hawaiian plants, Some new, 297
HAYNES, C. C., Sphaerocarpus hians sp.

nov., with a revision of the genus and illustrations of the species, 215
Hedera, 28; **cecilensis,** 28, 29; cretacea, 28
Helenium tenuifolium, 414, 417
Helianthella 328; Douglasii, 328; uniflora, 328
Helianthus, 83, 328; annuus, 328; aridus, 328; giganteus, 328; illinoensis, 79, 81; lenticularis, 328; occidentalis, 79, 81, 84; occidentalis **illinoensis,** 81, 82, 84; petiolaris, 328
Helianthus illinoensis Gleason as a species, The validity of, 79
Heliastrum album, 146
Helichrysum, 324
Heliopsis, 327
Hemicarpha, 123; micrantha, 123
Hepatica acuta, 561
Hepatics of New England, Discoid gemmae in the leafy, 365
Hesperis matronalis, 69
Hibiscus aculeatus, 409; cannabinus, 517; Drummondii, 475; Rosa-sinensis, 517; Sabdariffa, 516
Hicoria aquatica, 114, 117
HIRSH, P. E. The development of air chambers in the Ricciaceae, 73
HOLLICK, A. A new fossil fucoid, 305
Homalium **integrifolium,** 354
Homalocenchrus lenticularis, 123
Horkelia, 380
Houstonia angustifolia, 120
HOWE, R. H., JR. A manual of the genus Usnea, as represented in North and Middle America, north of the 15th parallel, 1; The genus Usnea and its Linnaean nomenclature, 605
HUMPHREYS, E. W. The name Buthotrephis gracilis Hall, 309
Hybanthus concolor, 477
Hybanthus concolor, Development of the embryo-sac of, 477
Hybrids in Dryopteris, One of the, 201
Hydrastis canadensis, 561
Hymenatherum, 449
Hymenocallis coronaria, 109
Hymenopappus, 330; araneosus, 330; cinereus, 330; eriopodus, 330; filifolius, 330; lugens, 330; luteus, 330; macroglottis, 330; ochroleucus, 330; parvulus, 330; scaposus, 330; tenuifolius, 330; tomentosus, 330
Hymenoxys, 332, 448; floribunda, 447; **Greenei,** 448; helenioides, 448; Lemmoni, 448; Lemmoni Greenei, 448; **Macouni,** 447, 448; pumila, 447; Richardsoni, 447, 448; Richardsoni Macouni, 447; Richardsoni pumila, 447
Hypargyreum, 377
Hypericum aspalathoides, 409
Hypoxis hirsuta, 429
Ilex Dodonaea, 351; glabra, 409, 416, 417, 419, 420; opaca, 114, 419, 420
Index to American botanical literature, (1909), 43; (1903–1909), 87; (1903–1908), 155; (1910), 207, 265; (1909), 337; (1900–1909), 387; (1910), 439, 481, 519, 563, 611
Inoceramus labiatus, 22
Inolepis, 188
Inula, 147; alba, 146
Ipomoea lacunosa, 115, 119
Iris Pseudacorus, 429; versicolor, 429
Isopyrum biternatum, 562
Isotria affinis, 433

Jasminum grandiflorum, 517
Jatropha, 506, 509
Jeffersonia diphylla, 562
Juglans arctica, 192, 504
Juniperus, 117; virginiana, 114
Jussiaea decurrens, 119

Laburnum, 574; vulgare, 575
Lake Tahoe region, California, Two new seed-plants from the, 261
Lantana **arida,** 357; **jamaicensis,** 356; lilacina, 357; stricta, 357; stricta lilacina, 357
Lappula floribunda, 264; **Jessicae,** 262, 263; micrantha, 264
Larkspurs of New Mexico, The, 31
Laurophyllum elegans, 26, 198
Laurus, 182; Hollickii, 26; plutonia, 26; proteaefolia, 26
Leafy hepatics of New England, Discoid gemmae in the, 365
Leguminosites, 197; coronilloides, 24; omphalobioides, 24; **robiniifolia,** 196
Lejeunea cavifolia, 365; serpyllifolia, 365
Lepidium, 64, 65; apetalum, 63; **bernardinum,** 149; campestre, 63; densiflorum, 63, 65; intermedium, 63; medium, 64, 65, 149; neglectum, 64, 65; virginicum, 63, 65; virginicum pinnatifidum, 63; virginicum pubescens, 63
Leptilon canadense, 414, 420
Leptochloa mucronata, 115, 120
Lespedeza capitata sericea, 410, 414
LEWTON, F. L. Cienfuegosia Drummondii, a rare Texas plant, 473
Libocedrus, 510
Lichen articulatus, 9, 607, 608; barbatus, 1, 7, 15, 607, 608; floridus, 2, 4, 607, 608; hirtus, 1, 4, 607–609; plicatus, 1, 5, 16, 606; sulphureus, 16
Lilium, 427; Catesbaei, 417, 600, 601; superbum, 426
Limnorchis huronensis, 432; major, 432
Linnaean nomenclature, The genus Usnea and its, 605
Liquidambar, 409; Styraciflua, 114, 408,

410, 411, 413, 414, 416, 419, 421, 423–425
Liriodendron, 425; Tulipifera, 408, 410, 411, 413, 414, 416, 419, 421, 423, 424
Liriodendropsis, 199
Listera australis, 434; cordata, 434
Literature, American botanical, (1909), 43; (1903–1909), 87; (1903–1908), 155; (1910), 207, 265; (1909), 337; (1900–1909), 387; (1910), 439, 481, 519, 563, 611
Lobelia Fawcettii, 359; **grandifolia,** 359; kauaiensis, 304
Local flora notes, 429, 559
Lophiola, 426, 427; aurea, 426
Lowellia, 449
Ludwigia pilosa, 410; suffruticosa, 411
Lupinus albifrons, 151; **Halli,** 151, 152; longifolius, 151
Lychnis alba, 57; coronaria, 560; dioica, 57
Lycium vulgare, 569
Lysias orbiculata, 432
Lysimachia **glutinosa,** 300, 302

Machaeranthera **angustifolia,** 147; laetevirens, 148; **leptophylla,** 147; linearis, 147
MACKENZIE, K. K. Notes on Carex, 231
Macrosiphonia brachysiphon, 579
Magnolia, 510; acuminata, 561; Boulayana, 23, 504; Capellinii, 504; glauca, 121, 408, 410, 411, 413, 414, 416, 419, 421, 422; grandiflora, 114, 117; Lacoeana, 23; longipes, 23; obtusata, 23; tripetala, 561; virginiana, 561
Malapoenna, 199; **horrellensis,** 198, 200, 504
Malus, 257
Manihot, 506, 509
Manihotites, 504, 505; **georgiana,** 507, 508
Manual of the genus Usnea, as represented in North and Middle America, north of the 15th parallel, A, 1
Marshallia, 418; graminifolia, 414, 417, 594
Maryland, Contributions to the Mesozoic flora of the Atlantic coastal plain—IV, 19
MCGREGOR, E. A. Two new seed-plants from the Lake Tahoe region, California, 261
Meibomia, 119; axillaris, 353; **umbrosa,** 353
Menispermites, 504
Menispermum canadense, 121
Mesozoic flora of the Atlantic coastal plain, Contributions to the, 19, 181, 503
Metzgeria, 372; crassipilis, 372; furcata, 372
Middle America north of the 15th parallel, A manual of the genus Usnea, as represented in North and, 1
Moehringia lateriflora, 58
Moenchia erecta, 560
Mollugo verticillata, 56, 120
Moriconia, 185, 510; **americana,** 20, 186, 200; cyclotoxon, 20
Morphology of Taenioma, The, 97
Morus rubra, 114
Musa Cavendishii, 514; sapientum, 514
Myrica, 423; cerifera, 409, 411, 414, 416, 419–421, 423, 600, 602; cliffwoodensis, 191; pumila, 416, 417, 600
Myrsine borealis, 29, 199; Gaudini, 200

Nabalus racemosus, 572
Nacrea, 325, 334; lanata, 325
Nageiopsis, 187
Name Buthotrephis gracilis Hall, The, 309
Nantucket, The ferns and flowering plants of, 51
Nelumbo, 424; lutea, 424, 599, 561; primaeva, 23
Neuropogon, 14
New England blackberries?, Have we enough, 393
New England, Discoid gemmae in the leafy hepatics of, 365
New fossil fucoid, A, 305
New Hawaiian plants, Some, 297
New Mexico, The larkspurs of, 31
New seed-plants from the Lake Tahoe region, California, Two, 261
New species of Uredineae, 569
New species of Viola fron the South, Five, 523
Nolina, 413; georgiana, 413, 600
Nomenclature, The genus Usnea and its Linnaean, 605
Non-available water, The effects of adding salts to the soil on the amount of, 273
North and Middle America, north of the 15th parallel, A manual of the genus Usnea, as represented in, 1
North Carolina, Contributions to the Mesozoic flora of the Atlantic coastal plain—V, 181
Notes, Local flora, 429, 559
Notes on Carex, 231
Notes on Rosaceae, 375, 487
Notes on Rutaceae, 85, 437
Notes on the distribution of some plants observed in traveling through the coastal plain from Georgia to New York in July, 1909, 591
Notothylas, 218
Nymphaea advena, 60, 422, 423, 425, 599; advena variegata, 561; hybrida, 561; Kalmiana, 561; sagittifolia, 414, 598
Nyssa biflora, 408, 410, 411, 413, 414,

416, 417, 419, 421, 423, 599; sylvatica, 426; uniflora, 121, 411, 414, 419, 421, 423, 596, 602

Oenothera biennis, 422; grandiflora, 119
One of the hybrids in Dryopteris, 201
Onoclea, 116, 117
Onoclea sensibilis, 115
Orchis rotundifolia, 431
Origin of its species, The genus Crataegus, with some theories concerning the, 251
Orontium aquaticum, 601
Osmunda, 116, 117; cinnamomea, 409, 410, 413, 414, 417, 419, 426; regalis, 115
Othake, 330, 331; callosum, 331; Hookerianum, 331; longifolium, 331; **macrolepis,** 332; maximum, 331; roseum, 332; **sphacelatum,** 331, 332; tenuifolium, 331
Other editions of Emory's Report, 1848, 479
Oxydendron, 420, 423; arboreum, 419, 421, 423, 595
Oxygraphis Cymbalaria, 62
Oxypolis, 417, 418, 597; filiformis, 410, 417, 595–597; filiformis Canbyi, 597

Paederia foetida, 518
Palafoxia, 331; Hookeriana, 330, 331; Hookeriana subradiata, 331; texana, 331
Paliurus, 504
Pandanus, 295; coronatus, 293, 294; tectorius, 293
Pandanus coronatus, The embryo-sac of, 293
Panax quinquefolium, 126
Panicum, 117; proliferum, 119; virgatum, 115, 119
Parthenium argentatum, 571; Hysterophorus, 571; incanum, 571
Paspalum fluitans, 124; mucronatum, 115, 117, 119, 124
PATTERSON, F. W. Stemphylium Tritici sp. nov., associated with floret sterility of wheat, 205
Pelea Waialealae, 304
Pellia, 217
Peninsular Florida, Additions to the flora of, 513
Pentaphylloides, 375
Pentaphyllon, 376
Pentaphyllum, 376
Peramium ophioides, 434; tesselatum, 434
Peridermium, 578; **fructigenum,** 578
Persea, 417; pubescens, 416
Persoonia, 192; Lesquereuxii, 192
Petasites **corymbosa,** 460; frigida, 460; palmata frigida, 460
Petesioides **subverticillatum,** 355
Phaseolites formus, 198
Phaseolus lunatus, 516; vulgaris, 515, 516
Phegopteris hexagonoptera, 126
Phoradendron, 116, 417, 422; flavescens, 115, 413, 416, 419, 421, 559, 599
Phragmites, 191; **Prattii,** 191, 504
Phryma Leptostachya, 126
Phyllanthus nivosus, 516
Phyllocladus, 184, 510
Physalis angulata, 119
Phytolacca decandra, 55
Picradenia, 332; biennis, 448; helenioides, 448
Picradeniopsis, 332; oppositifolia, 333; **Woodhousii,** 333
Pieris, 420; nitida, 419
Pinus echinata, 114, 413, 420, 423, 424, 426, 427; Elliottii, 407–410, 414, 427, 592, 602; glabra, 114, 117, 602; palustris, 124, 408, 410–414, 416, 419, 420, 427; raritanensis, 189; rigida, 426, 427; serotina, 408–411, 413, 414, 416, 419, 421, 422, 602; Taeda, 114, 407–414, 416, 419, 421, 423–425, 592, 600, 602; virginiana, 423–425, 602
Pisonia, 192; aculeata, 192; atavia, 191; **cretacea,** 191; eocenica, 192; racemosa, 192
Pistia, 198; corrugata, 190; Mazelii, 190; **Nordenskioldi,** 189, 200; Stratiotes, 189
Pistites loriformis, 190
Pittosporum **Hosmeri,** 297, 298
Pityoxylon, 189
Planera, 116; aquatica, 114, 599
Plantaginopsis marylandica, 185
Plantago eriopoda, 462
Plants, Some new Hawaiian, 297
Plants, Studies of West Indian, 345
Platanus, 116, 117, 425; cissoides, 28; Heerii, 23; occidentalis, 114, 424, 425
Platyschkuhria, 332, 333; **desertorum,** 333; integrifolia, 333; oblongifolia, 333
Pluchea bifrons, 410; imbricata, 409, 594, 597
Plumiera emarginata, 356; **jamaicensis,** 356
Poa trivialis, 572
Podocarpus, 187, 188, 510; elongata, 187
Podogonium, 197
Podophyllum peltatum, 562
Podozamites angustifolius, 182; Knowltoni, 182
Pogonia divaricata, 433
Pollination experiments with Anonas, 529
Polycodium, 413; caesium, 413, 595
Polygala, 418; acuminata, 363; cymosa, 410, 417, 418, 597; diversifolia, 362; domingensis, 361, 363; jamaicensis, 362; lutea, 414, 417, 418, 420, 423, 597, 598; Penaea, 361; ramosa, 410, 414, 417, 419, 420
Polygonum amphibium, 559; arifolium, 559; dumetorum, 560; Hartwrightii,

560; littorale, 559; Rayi, 560; tenue, 82
Polypodium polypodioides, 115
Polypteris Hookeriana, 331; maxima, 330, 331
Polysiphonia, 100; macroura, 98; perpusilla, 98
Pontederia cordata, 410, 411, 417, 420, 422
Populus, 116, 117; deltoides, 114, 413
Portulaca grandiflora, 56; oleracea, 56
Potentilla 375–381, 487, 494, 495; acuminata, 492, 494; alaskana, 490; alba, 376; alpestris, 495; altaica, 500, 501; amadorensis, 384; angustata, 384; Anserina, 375, 376; argentea, 377, 382; argentea decumbens, 489; Bakeri, 487, 488; bicrenata, 497; biennis, 381, 382; Blaschkeana, 384, 385, 487–489, 491, 497; brunescens, 383; brunnescens, 383; brunneus, 383; camporum, 490; canadensis, 376, 377, 380, 381; candida, 487, 497; caroliniana, 380; comarioides' 493; comosa, 487, 488; concinna, 497; concinna divisa, 497; concinnaeformis, 493, 497; ctenophora, 489; dascia, 384, 385; decurrens, 495, 496; dichroa, 490; digitato-flabellata, 382; dissecta, 496, 500; dissecta decurrens, 495, 496; diversifolia, 385, 491, 495, 496; diversifolia decurrens, 494–496; diversifolia genuina, 495; diversifolia glaucophylla, 495; diversifolia jucunda, 495; divisa, 500; durangensis, 493; elegans, 494; Elmeri, 487, 488; emarginata, 494; etomentosa, 385; fastigiata, 491, 497, filipes, 490, 491; flabellifolia, 492, 494; flabelliformis, 489, 494; flabelliformis ctenophora, 489; flavovirens, 382; flexuosa, 382; fragiformis, 383, 492, 494; fruticosa, 376; gelida, 494; glandulosa, 377; glaucophylla, 384–386, 490, 495, 496; glomerata, 384, 385, 490; Goldmani, 386; gracilis, 385, 488–492, 497, 502; gracilis viridescens, 488; grandiflora, 377, 378; grosse-serrata, 384, 489; haematochrus, 492; Hallii, 384, 385; Hassei, 497; heptaphylla, 383; heterosepala, 378; Hookeriana, 499, 501, 502; horrida, 493; intermedia, 378, 382; intermittens, 490; jucunda, 385, 386, 495; Kelseyi, 382; labradorica, 382; Langeana, 494, 495; lasia, 384, 385; leptopetala, 492, 493; leptopetala staminea, 493; leptophylla, 383; leurocarpa, 382; longiloba, 488; macropetala, 384; maculata, 494, 495; madrensis, 494; michoacana, 381; millegrana, 381, 382, modesta, 499; monspeliensis, 377, 378, 381, 382; multifida 501; multisecta, 496; Newberryi, 378, 382; Nicolletii, 381, 382; nipharga, 499–501; nivea, 377, 378, 498–502; nivea altaica, 500; nivea arenosa, 500; nivea dissecta, 500; nivea macrophylla, 499, 502; nivea pentaphylla, 498; nivea pinnatifida, 500, 501; nivea subquinata, 498–501; norvegica, 377, 381, 382; norvegica hirsuta, 382; Nuttallii, 383, 384, 386, 497; oaxacana, 386, 497; oblanceolata, 497; obovatifolia, 493, 497; ovina, 496; Palmeri, 383, 492, 494; palustris, 380; paradoxa, 381, Parishii, 384; paucijuga, 502; Pecten, 487, 488; pectinisecta, 383, 384; Pedersenii, 500, 501; pentandra, 377, 381; pentaphylla, 498; perdissecta, 494, 496; permollis, 487; pinnatifida, 501; procumbens, 377; 380; prostrata, 502; pseudosericea, 502; pulcherrima, 385, 491, 497; pulcherrima communis, 491; pulcherrima condensata, 491; pumila, 377, 380, 381; pyrenaica, 495; quinquefolia, 492, 497–500, 502; ranunculoides, 496; Ranunculus, 492, 494, 496; recta, 376, 384; rectiformis, 384; reptans, 375–377, 380; rivalis, 381; Robbinsiana, 494; rubra, 493; rubricaulis, 499; rubricaulis arctica, 499; rubripes, 499; rupestris, 377; Salesowiana, 380; sanguinea, 494; saximontana, 499; saxosa, 492, 494; Sierrae-Blancae, 492, 494; simplex, 377, 380, 381; staminea, 492, 493; subacaulis, 377, 378; subjuga, 492, 498; subquinata, 498–500; subquinata Pedersenii, 500, 501; subvillosa, 487, 488; supina, 377, 381; supina Nicolletii, 382; supina paradoxa, 381; tomentosa, 497; Tormentilla, 376, 377; Townsendii, 383, 492, 494; uniflora, 499, 501; verna, 377; villosa, 501; viridescens, 488, 490; Vreelandii, 495; Wahliana, 501; Wheeleri, 496; Wheeleri viscidula, 496
Potentillopsis, 377
Protococcus, 3
Protophyllocladus, 185, 510
Prunus angustifolia, 410, 411, 413
Psychotria auriculata, 359; **subcordata,** 358
Pteris aquilina, 413, 417, 422–426
Puccinia, 576; Caricis, 580; **Deschampsiae,** 570; **Glaucis,** 571; globosipes, 569; **Nabali,** 571; **Parthenii,** 570; Urticae, 580
Pucciniastrum, 578; Agrimoniae, 576; minimum, 578

Quantitative study of the more conspicuous vegetation of certain natural subdivisions of the coastal plain, as observed in traveling from Georgia to New York in July, A, 405
Quercus, 510; alba, 419–421, 423–426;

agrifolia, 22; Catesbaei, 411, 413, 414, 416–418; chrysolepis, 22; cinerea, 413, 416, 418; falcata, 408, 411, 414, 416, 417, 419, 421, 423, 424; Holmesii, 22; Ilex, 22; ilicifolia, 426; laurifolia, 114; lyrata 114, 117; marylandica, 410, 411, 413, 414, 416, 419, 423, 426, 427; morrisoniana, 21; nigra, 114; palustris, 424, 599; Phellos, 419–421, 423, 424; Prinus, 426, 427, 599; pumila, 408; **severnensis,** 22, 29; stellata, 419, 424; tomentella, 22; velutina, 79, 81, 83, 84; Wislizeni, 22
Quercophyllum chinkapinensis, 22
Quinquefolium, 375, 376

Radicula Armoracia, 68; Nasturtium-aquaticum, 68; palustris, 68
Radula, 366; complanata, 365, 366, 369–373; Hedingeri, 366, 373; tjibodensis, 366
Ranunculus acris, 61, 62; acris Steveni, 62; alleghaniensis, 561; bulbosus, 62; delphinifolius, 61; Eschscholtzii, 315; obtusiusculus, 61; pennsylvanicus, 561; pusillus, 561; repens, 62
Raphanus Raphanistrum, 67; sativus, 67
Ravenia, 437; **Shaferi,** 437
Razoumofskya pusilla, 559
Report, 1848, Other editions of Emory's, 479
Reseda lutea, 69
Revision of the genus and illustrations of the species, Sphaerocarpus hians sp. nov., with a, 215
Rhamnites apiculatus, 25; crocea pilosa, 153
Rhamnus ilicifolia, 153; **pilosa,** 153
Rhexia Alifanus, 409, 410, 414, 417, 419, 420, 596
Rhoeo discolor, 513
Rhus copallina, 421; radicans, 115
Ribes oxyacanthoides calcicola, 72
Riccia, 73, 77, 217; arvensis hirta, 74; crystallina, 74; Donnellii, 74; fluitans, 73, 74; Frostii, 74–77; glauca, 74; lutescens, 73; Miyakeana, 74; natans, 73; nigrella, 74
Ricciaceae, The development of air chambers in the, 73
Ricciella, 73, 77
Ricciocarpus, 73, 77; natans, 74–76
Riella, 217
Robinia, 424
Robinia Pseudo-Acacia, 424, 425
ROCK, J. F. Some new Hawaiian plants, 297
Rocky Mountain flora, Studies on the, 127, 313, 443, 541
Rondeletia **elegans,** 357; **pallida,** 358
Rosa, 257
Rosaceae, Notes on, 375, 487
Rubus, 257, 397, 398, 545; abbrevians, 401, 402; allegheniensis, 396, 397, 399–401, 403; allegheniensis×argutus, 400; allegheniensis×Baileyanus, 400; allegheniensis×canadensis, 400; allegheniensis×Enslenii, 400; allegheniensis×frondosus, 400; allegheniensis×hispidus, 400; allegheniensis×nigricans, 400; allegheniensis×procumbens, 400; allegheniensis×vermontanus, 400; amabilis, 399; amnicolus, 400, 401; Andrewsianus, 400; arenicolus, 401, 403; argutus, 396, 397, 400, 401; argutus× allegheniensis, 400; argutus× Baileyanus, 401; argutus×cuneifolius, 401; argutus×Enslenii, 401; argutus×flagellaris, 401; argutus×frondosus, 400; argutus×hispidus, 400; argutus× nigricans, 400; argutus×procumbens, 401; arundelanus, 401; ascendens, 400, 402; Baileyanus, 396, 400, 402, 403; Baileyanus×allegheniensis, 403; Baileyanus×argutus, 403; Baileyanus× Enslenii, 403; Baileyanus×flagellaris, 403; Baileyanus×frondosus, 403; Baileyanus×hispidus, 403; Baileyanus× nigricans, 403; Baileyanus×procumbens, 403; canadensis, 396, 397, 399, 400, 402; canadensis×allegheniensis, 399; canadensis × Baileyanus, 399; canadensis×hispidus, 399; canadensis ×nigricans, 399; canadensis×procumbens, 399; cubitans, 402; cuneifolius, 396; elegantulus, 399; Enslenii, 396, 399, 403; Enslenii×allegheniensis, 403; Enslenii×argutus, 403; Enslenii× Baileyanus, 403; Enslenii×flagellaris, 403; Enslenii×frondosus, 403; Enslenii ×hispidus, 403; Enslenii×nigricans, 403; Enslenii×procumbens, 403; flagellaris, 396, 398, 403; flagellaris×argutus, 403; flagellaris×Baileyanus, 403; flagellaris×Enslenii, 403; flagellaris×frondosus, 403; flagellaris×hispidus, 403; flagellaris×procumbens, 403; flavinanus, 400; floricomus, 400; frondisentis, 400, 401; frondosus, 396, 397, 401; frondosus×allegheniensis, 401; frondosus×argutus, 401; frondosus×Baileyanus, 401; frondosus×Enslenii, 401; frondosus×flagellaris, 401; frondosus× hispidus, 401; frondosus×nigricans, 401; frondosus×procumbens, 401; geophilus, 403; glandicaulis, 400; Groutianus, 401; hispidus×allegheniensis, 402; hispidus×argutus, 402; hispidus ×Baileyanus, 402; hispidus×canadensis, 402; hispidus×Enslenii, 402; hispidus×flagellaris, 402; hispidus×frondosus, 402; hispidus major, 402; hispidus×nigricans, 402; hispidus×procumbens, 402; invisus, 400; jacens, 401;

Jeckylanus, 400, 403; junceus, 401; multiformis, 399, 402; multiformis delicatior, 399; multispinus, 401, 402; nigricans, 396, 400–402; nigricans×allegheniensis, 401; nigricans×argutus, 402; nigricans×Baileyanus, 402; nigricans×canadensis, 401; nigricans×Enslenii, 402; nigricans×flagellaris, 402; nigricans×frondosus, 402; nigricans×hispidus, 402; nigricans×procumbens, 402; ovarius, 399; peculiaris, 399, 401; pergratus, 399; permixtus, 400, 402; philadelphicus, 401; plicatifolius, 402; procumbens, 396, 398, 399, 402, 403; procumbens×allegheniensis, 402; procumbens×argutus, 402; procumbens×Baileyanus, 402; procumbens×canadensis, 402; procumbens×Enslenii, 403; procumbens×flagellaris, 403; procumbens×frondosus, 402; procumbens×hispidus, 402; procumbens×nigricans, 402; Randii, 399; recurvans, 401; recurvans subrecurvans, 401; recurvicaulis, 399; recurvicaulis inarmatus, 399; roribaccus, 402; Rossbergianus, 401; sativus, 400; semierectus, 402; semisetosus, 401; setosus, 402; subuniflorus, 403; tardatus, 401; triflorus, 400; trifrons, 402; vermontanus, 399, 402; vermontanus viridifolius, 401

Rumex conglomeratus, 559; hastatulus, 559; hispidus, 396; 402, pulcher, 559; salicifolius, 559; sanguineus, 559; verticillatus, 559

Russellia juncea, 517

Rutaceae, Notes on, 85, 437

RYDBERG, P. A. Notes on Rosaceae, 375, 487; Studies on the Rocky Mountain flora, 127, 313, 443, 541

Rynchospora, 117; alba, 601; alba macra, 601; inexpansa, 420, 422, 601

Sabbatia angularis, 422; decandra, 410, 595, 597; lanceolata, 414, 417, 418, 420, 423

Sagina procumbens, 58

Salicornia ambigua, 54; Bigelovii, 54, 560; europea, 53, 54

Salix, 116, 182, 197; Bonplandiana, 194; denticulata, 194; **eutawensis,** 193, 200, 504; flexuosa, 193, 504, 505; fluviatilis, 194; Lavateri, 194; Lesquereuxii, 21, 194, 505; Newberryana, 193, 194; nigra, 114, 194, 411, 414, 419, 421, 423–425; proteaefolia, 194; varians, 194

Salsola caroliniana, 55; Kali, 54

Salts to the soil on the amount of non-available water, The effects of adding, 273

Sanguinaria canadensis, 562

Sanseviera guineensis, 514

Saponaria officinalis, 57

Sarracenia, 420; flava, 410, 414, 416, 419, 598, 602; purpurea, 69

Sassafras acutilobum, 22; cretaceum, 22; Sassafras, 63; variifolium, 411, 414, 423, 424, 426

Saururus cernuus, 422

Saussurea alpina, 541; alpina densa, 541; alpina Ledebouri, 541; alpina remotiflora, 541; **densa,** 541; Ledebouri, 541; nuda, 541; **remotiflora,** 541; subsinuata, 541; Tilesii, 541

Schkuhria Woodhousii, 333

Scirpus, 117, carinatus, 123; cyperinus, 424; Eriophorum, 409–411, 414, 417, 422

Scleranthus annuus, 56

Scrophularia marilandica, 126

Scutellaria californica, 335; veronicifolia, 335

Sedum acre, 71; purpureum, 71

Seed-plants from the Lake Tahoe region, California, Two new, 261

Senecio, 463–465; acutidens, 466; alpicola, 470; altus, 470; **ambrosioides,** 467; anacletus, 464; atriapiculatus, 464; aureus, 464; Balsamitae, 469; Bigelovii, 463, 464; Bigelovii Hallii, 463; canovirens, 465; canus, 465; chloranthus, 463; cognatus, 470; columbianus, 464, 465; contristatus, 463, 464; cymbalarioides, 466; debilis, 466; discoideus, 466; dispar, 465; eremophilus, 466–468; exaltatus, 464, 470; fediifolius, 466; Fendleri, 465; flavovirens, 469, 470; flavulus, 466, 469, 470; Flintii, 464; glaucescens, 464; glaucifolius, 468; Hallii, 470; Harbourii, 465; Hartianus, 466; Howellii, 465; integrifolius, 464; Jonesii, 466; **Kingii,** 468; lanatifolius, 465; lanceolatus, 470; laramiensis, 470; **Leonardi,** 468; longipetiolatus, 466; MacDougalii, 467; multicapitatus, 465; multilobatus, 465; Nelsonii, 465; neomexicanus, 470; nephrophyllus, 466; oodes, 466; pauciflorus, 466; pentadontus, 470; perennans, 470; perezii-folius, 470; perplexus, 464, 465; petraeus, 470; petrocallis, 470; Porteri, 470; pseudaureus, 466; pyrrochrous, 466; Riddellii, 465; rosulatus, 465; Rusbyi, 464; salicinus, 465; saxosus, 470; scopulinus, 463, 464; Scribneri, 470; seridophyllus, 470; solitarius, 464; sphaerocephalus, 470; subcuneatus, 466; subnudus, 464; tomentosus, 469; Tracyi, 466; turbinatus, 470; **Tweedyi,** 469; uintahensis, 465, 466; Wardii, 470; werneriaefolius, 470

Sequoia, 181, 504, 505, 510; ambigua, 20; minor, 185; Reichenbachi, 20, 185, 504, 505

Serenoa, 409; serrulata, 408

Sesbania macrocarpa, 115, 119
Sibbaldia, 377, 379, 380
Sibbaldiopsis, 380
Sicyos angulatus, 115, 120
Sida, 473; spinosa, 115
Sideroxylon **rhynchospermum,** 297, 299, 301; sandwicense, 301
Silene alba, 560; antirrhina, 56, 560; Armeria, 56; dichotoma, 57, 560; virginica, 560; vulgaris, 56
Silphium compositum, 413, 417
Sisymbrium altissimum, 66; leiocarpum, 66; officinale, 66
Sisyrinchium albidum, 430; angustifolium, 430; intermedium, 430
SLOSSON, M. One of the hybrids in Dryopteris, 201
SMALL, J. K. Additions to the flora of peninsular Florida, 513
Smilax laurifolia, 409, 414, 416, 417, 419, 421, 422
Soil on the amount of non-available water, The effects of adding salts to the, 273
Solidago **Garrettii,** 134; glaberrima, 133; **glaucophylla,** 133; missouriensis, 132, 133; missouriensis montana, 132, 134; mollis, 134; nana, 134; **nivea,** 133; Radula, 134; radulina, 134; serotina, 133; Tolmieana, 132
Some new Hawaiian plants, 297
Sorghum halepense, 120
South, Five new species of Viola from the, 523
Sparganium, 295
Spathelia **cubensis,** 437
Species of Uredineae, New, 569
Species of Viola from the South, Five new, 523
Species, Sphaerocarpos hians sp. nov., with a revision of the genus and illustrations of the, 215
Species, The genus Crataegus, with some theories concerning the origin of its, 251
Species, The validity of Helianthus illinoenis Gleason as a, 79
Spergula arvensis, 59
Spermacoce, 117; glabra, 115, 119
Sphaerocarpos, 215–219, 223, 228; Berteri, 224; Berterii, 217, 222, 223, 228; Berteroi, 216, 217, 228; californicus, 216, 222–224; cristatus, 216, 220, 226, 227, 230; Donnellii, 216, 220, 226–229; **hians,** 220, 225–227, 229; Jamesii, 216; lagenarius, 221; Micheli, 229; Michelii, 216, 221–224; Michelii californicus, 223; Notarisii, 217; Sphaerocarpos, 216, 220, 222, 224, 225, 229; stipitatus, 215, 217, 220, 228, 230; terrestris, 216, 221–225; terrestris californicus, 227; texanus, 216, 220, 222–225, 227, 229; utriculosus, 221
Sphaerocarpos hians sp. nov., with a revision of the genus and illustrations of the species, 215
Sphaerocarpus, see Sphaerocarpos
Spilanthes repens, 119
Spirostachys occidentalis, 576
Staten Island, The violets of, 163
Stellariopsis, 380
Stemphylium, 205; **Tritici,** 205
Stemphylium Tritici sp. nov., associated with floret sterility of wheat, 205
Stenophyllus Stenophyllus, 123
Sterculia, 510
Sterility of wheat, Stemphylium Tritici sp. nov., associated with floret, 205
STEVENS, N. E. Discoid gemmae in the leafy hepatics of New England, 365
Stevia sphacelata, 331
Stillingia aquatica, 597; spinulosa, 480
Studies on the flora of Southern California, 149
Studies on the Rocky Mountain flora, 127, 313, 443, 541
Studies of West Indian plants, 345
Study of the more conspicuous vegetation of certain natural subdivisions of the coastal plain, as observed in traveling from Georgia to New York in July, A quantitative, 405
Suaeda americana, 54
Symphoricarpos, 219

Taeniocrada, 306; Lesquereuxii, 306
Taenioma, 99, 101, 105; macrourum, 98, 99; perpusillum, 98
Taenioma, The morphology of, 97
Targionia Sphaerocarpos, 220
Taxites, 188
Taxodium, 423; adscendens, 602; distichum, 114, 121, 411, 414, 416, 419–421, 423, 596, 602; imbricarium, 408–411, 414, 416, 417, 419, 420, 602
TAYLOR, N. Local flora notes, 429, 559
Tecoma radicans, 115, 119
Tetradymia, 470; canescens, 470, 471; glabrata, 470, 471; inermis, 470; linearis, 470; **longispina,** 471; multicaulis, 470; spinosa longispina, 471
Tetraneuris, 443, 444; acaulis, 444, 445, 447; acaulis caespitosa, 445; angustifolia, 444, 446; arizonica, 444, 446; brevifolia, 444, 445; Crandallii, 444, 446; epunctata, 446; eradiata, 445; fastigiata, 444, 446; glabra, 444, 446; glabriuscula, 444, 446; incana, 444; intermedia, 444, 446; lanata, 445; leptoclada, 446; linearis, 444, 446; mancosensis, 444, 446; pilosa, 444, 446; **septentrionalis,** 447; simplex, 444, 445, 447; stenophylla, 444, 446; Torreyana, 446; trinervata, 445
Texas plant, Cienfuegosia Drummondii, a rare, 473

Thalictrum polygamum, 62; revolutum, 62
Thamnocladus, 306; Clarkei, 306; **passifrons,** 307
Thaspium barbinode Chapmani, 121
Thelesperma, 329; ambiguum, 329; intermedium, 329; marginatum, 329; subnudum, 329; tenue, 329; trifidum, 329
Theories concerning the origin of the species, The genus Crataegus, with some, 251
Thespesia populnea, 516
Thinnfeldia, 185; marylandicum, 185
Thlaspi arvense, 66, 69
THOMPSON, E. I. The morphology of Taenioma, 97
Thrinax **Rex**, 352
Thuites Meriani, 186
Thunbergia, 517; fragrans, 517
Thymophylla, 449
Tillaea simplex, 70
Tillaeastrum aquaticum, 70; Vaillantii, 70
Tillandsia, 117, 409, 420; usneoides, 115, 409–411, 416, 419
Tissa canadensis 59; marina, 59; rubra, 59
Tofieldia, 418; racemosa, 417
Tombigbee rivers in the coastal plain of Alabama, A botanical and geological trip on the Warrior and, 107
Tonestus, 334
Tormentilla, 376, 378; erecta, 376
Torrubia, 192
Tradescantia, 573
Treubia, 217
Tricera **macrophylla,** 354
Tridax procumbens, 518
Tridophyllum, 377, 378
Trifolium, 581; arvense, 425
Trilisa, 417, 418; odoratissima, 417, 594
Trip on the Warrior and Tombigbee rivers in the coastal plain of Alabama, A botanical and geological, 107
Triphleps, 532; insidiosus, 532
Triphora trianthophora, 433
Tripsacum dactyloides, 120
Triticum sativum, 205
Trollius laxus, 561
Tsuga, 578; canadensis, 578
Tumion, 187, 188, 506; carolinianum, 181, 188, 504
Tunica Saxifraga, 560
Tussilago corymbosa, 460
Two new seed-plants from the Lake Tahoe region, California, 261
Typha latifolia, 422

Unamia, 147; **alba,** 146, 147; **lutescens,** 147; ptarmicoides, 146
Uniola, 117; latifolia, 115
Uredineae, New species of, 569
Uredo **Beloperonis,** 576; commelinacea, 574; Commelinae, 573; inquirenda, 569; ochracea, 574; Parthenii, 570; Spegazzinii, 573; **Spirostachydis,** 576; varia, 577; **Wilsoni,** 577
Uromyces Chenopodii, 576; **Coluteae,** 574, 575; Commelinae, 573; Genistae-tinctoriae, 574, 575; **Glyceriae,** 572; Poae, 572; **Spegazzinii,** 573
Uropyxis, 576; **Agrimoniae,** 575
Urtica, 580; chamaedryoides, 580
Urticastrum divaricatum, 122
Usnea, 1, 3, 14, 15, 606, 609; angulata, 3, 12, 15, 17; articulata, 9, 10, 17, 607, 609; articulata dimorpha, 11, 15; barbata, 6, 7, 17, 607, 609; barbata dasypoga, 7, 607; barbata florida, 5, 608; barbata glabrescens, 607; californica, 3, 6, 15, 17; capillacea, 9, 17; cavernosa, 9, 10, 11, 15, 17; ceratina, 5, 6, 606; ceratina scabrosa, 6; cornuta, 15; dasypoga, 7, 607; dasypogoidis exasperatum, 11; endochrysea, 15; filaris, 15; filipendula, 15; florida, 3, 4, 6, 7, 15–17, 607–609; florida intermedia, 15; florida major, 15; florida rubiginea, 4, 16; florida strigosa, 4, 16; jamaicensis, 15; lacunosa, 15; linearis, 15; longissima, 3, 8, 9, 13, 17, 18; mutabilis, 15; nodosa, 9, 17; plicata, 3, 5–8, 15, 17, 606, 609; plicata **barbata,** 7, 15, 17, 607, 609; scoparia, 16; sphacelata, 16; strigosa, 3; subfusca, 16; sulphurea, 14; trichodea, 8, 9, 16, 17; trichodea ciliata, 9, 15; variegata, 16; vulgaris, 5, 17; vulgatissima, 3, 4, 16
Usnea and its Linnaean nomenclature, The genus, 605
Usnea, as represented in North and Middle America, north of the 15th parallel, A manual of the genus, 1

Valerianoides jamaicensis×**mutabilis,** 356
Validity of Helianthus illinoensis Gleason as a species, The, 79
Vegetation of certain natural subdivisions of the coastal plain, as observed in traveling from Georgia to New York in July, A quantitative study of the more conspicuous, 405
Vernonia, 418; angustifolia, 411, 413, 414, 417
Vesquia Tournaisii, 188
Viburnum, 351; alpinum, 352; **arboreum,** 351; glabratum, 352; villosum, 351
Villanova, 333; chrysanthemoides, 333; **dissecta,** 333
Viola, 117, 255–257, 525, 581, 584, 585; affinis, 164, 168, 170, 171, 173; affinis× **Brittoniana,** 169, 179; affinis×cucullata, 170; affinis×**fimbriatula,** 170, 179; affinis×**hirsutula,** 171; affinis×**palmata,** 171, 179; affinis×papilionacea,

172; affinis×sagittata, 172; affinis×sororia, 172, affinis×villosa, 171; amoena, 169; asarifolia, 584; atlantica, 165; Bernardi, 583; blanda, 164, 168, 169; blanda palustriformis, 169; Brittoniana, 164–166, 170, 173; Brittoniana×cucullata, 172; Brittoniana×**fimbriatula**, 172; Brittoniana×**papilionacea**, 173, 179; Brittoniana×sagittata, 174; canina Muhlenbergii, 169; canina sylvestris, 169; **chalcosperma**, 523; congener, 585; conspersa, 165, 169; cordifolia, 176; cucullata, 164, 166, 173; cucullata×fimbriatula, 174; cucullata×palmata, 174; cucullata×papilionacea, 174; cucullata×septemloba, 172; cucullata×triloba, 174; delphinifolia, 165; domestica, 163; **Egglestonii**, 526, 528, 584, 590; emarginata, 164, 166; emarginata×fimbriatula, 174; emarginata×sagittata, 174; esculenta, 525, 588–590; falcata, 586, 587; **floridana**, 524, 590; fimbriatula, 164, 166; fimbriatula×**hirsutula**, 175, 179; fimbriatula×palmata, 175; fimbriatula×papilionacea, 175; fimbriatula×sagittata, 175; fimbriatula×septemloba, 172; fimbriatula×sororia, 175; fimbriatula×villosa, 175; heterophylla, 588, 589; hirsutula, 164, 167, 171, 175, 176, 178, 590; hirsutula×papilionacea, 176; hirsutula×**sororia**, 176, 179; incognita, 165, 168; labradorica, 169; lanceolata, 165, 168, 176; lanceolata×**primulifolia**, 176, 179; Langloisii, 523, 525; latiuscula, 590; Leconteana, 169; **Lovelliana**, 526, 590; missouriensis, 590; Muhlenbergii, 169; Mulfordae, 172; notabilis, 172; ovata, 166; pallens, 165, 168, 177; pallens×**primulifolia**, 177, 179; palmata, 164, 167, 171, 177, 524, 581–590; palmata dilatata, 167, 586, 587; palmata heterophylla, 588; palmata×**papilionacea**, 177; palmata×sagittata, 178; palmata vulgaris, 589; papilionacea, 163, 164, 167, 171, 173, 176–178, 524, 581, 584, 585, 590; papilionacea×**sororia**, 178; papilionacea×sagittata, 178; papilionacea×villosa, 176; pectinata, 164, 166; pedata, 164, 165; pedata linearifoba, 165; perpensa, 584; Porteriana, 174, primulifolia, 165, 168, 176, 177; pubescens, 165 169; pubescens scabriuscula, 169; **rosacea**, 525, 590; rotundifolia, 165, 169, 179; rotundifolia pallens, 168; sagittata, 164, 166; sagittata emarginata, 166; sagittata ovata, 166; sagittata×septemloba, 174; scabriuscula, 165, 169; septemloba, 165, 173, 589; sororia, 164, 167, 177, 178, 584, 585, 590; Stoneana, 584, 590; striata, 169; triloba, 164, 167, 174, 177, 581–587, 589, 590; triloba **dilatata**, 587, 590; villosa, 167, 171; villosa cordata, 176; villosa cordifolia, 176

Viola from the South, Five new species of, 523

Viola palmata and its allies, 581

Violets of Staten Island, The, 163

Vitis vulpina, 115, 117

Warrior and Tombigbee rivers in the coastal plain of Alabama, A botanical and geological trip on the, 107

Water, The effects of adding salts to the soil on the amount of non-available, 273

West Indian plants, Studies of, 345

WESTER, P. J. Pollination experiments with Anonas, 529

Wheat, Stemphylium Tritici sp. nov., associated with floret sterility of, 205

Widdringtonites, 510; Reichii, 21

WILSON, P. Notes on Rutaceae, 85, 437

WOOTON, E. O. The larkspurs of New Mexico, 31

Wyomingia, 317, 319, 334

Xanthium, 115, 119

Xanthorrhiza apiifolia, 561

Xylophylla **contorta**, 353

Xylorrhiza **lanceolata**, 146; tortifolia, 146

Xyris, 414, 417, 419; flexuosa, 417; torta, 417

Zamia integrifolia, 533

Zamiopsis insignis, 185

Zanthoxylum, 85; americanum, 85; **bijugum**, 86; Clava-herculis, 85; **elegantissimum**, 85; **granulatum**, 86; **Harmsianum**, 86; **Hartii**, 85; **Liebmannianum** 85; **mollissimum**, 86; **monophyllum**, 86; **rhodoxylon**, 85; trifoliatum, 85

Zebrina pedula, 514

Zinnia grandiflora, 479, 480

Zizyphus, 504

Zygadenus glaberrimus, 410, 414, 417, 600